

SESSION 8

Usual Problems

Thomas Ho
Hamilton Associates
Vancouver, BC
Canada

Prof. Frank Navin
Civil Engineering
University of British Columbia
Canada

with
material provided by
Steve Proctor
TMS Consultancy
United Kingdom

COMMON PROBLEMS FOUND BY ROAD SAFETY AUDITS/REVIEWS

Frank Navin
Professor of Civil Engineering
University of British Columbia

Vancouver, BC
CANADA

SUCCESS FACTORS FOR ROAD SAFETY AUDITS/REVIEWS

- **Government & Management committed to road safety with authority and resources.**
- **Specially trained and dedicated personnel.**
- **Systematic approach, checklist aid.**
- **Agreed method to conduct and receive audits/reviews.**
- **Use results to improve design standards and procedures.**

COMMON ROAD SAFETY AUDIT PROBLEMS UK

Road User	Location	Problem	Score
Vehicle user/cyclist	Roundabout	lack of deflection encouraging high entry speeds	6
Vehicle user	Link	actual speeds greater than design speed	5
Cyclist	Link	lack of continuity	4
Pedestrian	All	poorly sited crossings routes not on desire lines	4
Vehicle user	Link	signs/lamp columns in front of safety fence/signs unprotected	4
Vehicle user	Link/junction	signs obscured by vegetation (or other obstructions)	4
Visually impaired	All	poorly designed tactile paving tactile paving omitted	4
Pedestrian/wheelchair user	All	lack of dropped crossings crossings not flush	4
Cyclist	Link	missed opportunity for cycle lanes	3
Cyclist	Link	poorly sited street furniture obstructing cycleways	3
Motor cyclist	Roundabout	inspection chamber covers in circulatory section and exits	3
Pedestrian/wheelchair user	All	poorly sited street furniture obstructing footways	3
Pedestrian	All	lack of guard rails not high visibility	3
Vehicle user	Link	embankments unprotected	3
Vehicle user	Roundabout	too many entry lanes	3
Cyclist	Link	lack of direction warning/regulatory signs	2
Cyclist	Pelican crossings	missed opportunity for toucan	2
Vehicle user	Link	see through on existing roads	2
Vehicle user	Link	poorly sited lavbys	2
Vehicle user	Link	lack of temporary signs	2
Vehicle user	Roundabout	poorly sited street furniture especially chevron signs (mini roundabout signs)	2
Vehicle user	Roundabout/traffic signals	lack of anti-skid or insufficient length	2
Vehicle user	Traffic signals	poorly sited signal heads signal heads obscured	2

(The score indicates the degree of consensus between the seven Safety Auditors on each of the issues.)

BRITISH ROAD DESIGN PROBLEMS

- **Pedestrians**
 - poorly sited crossings
 - routes not on desire line
 - lack of guardrail
 - guardrail not highly visible
- **People with Disabilities**
 - lack of tactile pavement
 - poorly designed tactile pavement
 - lack of drop crossing
 - crossing not flush
- **Motorcycle**
 - manhole covers in travel lane

BRITISH ROAD DESIGN PROBLEMS

- **Vehicles on links**
 - actual speed greater than design.
 - Signs obscured by vegetation etc
 - street furniture unprotected or in front of safety fence
 - embankments unprotected
- **Vehicles at intersections**
 - lack entry path deflection at roundabouts
 - lack of anti-skid surface
 - poorly sited traffic signal heads
 - traffic signal heads obscured

ANALYSIS PROCESS, Cycle Facility

- **Reason for Facility**
 - Encourage cycling to change modes of travel by special facility
- **Safety Issues**
 - Lack of cycle route continuity
 - Poor signing, marking , maintenance
 - Inadequate warning to others
 - provisions at roundabouts
- **Possible Solutions**
 - Route based community strategy
 - Cycle user audits
 - Traffic calming to slow vehicles
 - Site specific remedies such as markings

AUSTRALIAN EXPERIENCE

- **Delineation, inadequate or poorly maintained**
- **Incorrect or poorly maintained guide posts**
- **Poor or incorrect installation of safety barrier**
- **Roadside hazards in clear zone**
- **Sight distance restrictions at intersections**